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(72) Inventors: **SATTLER, Andreas**; Waldweg 13, 83308
Trostberg (DE). **VETTERHÖFFER, Jürgen**; Marienberg-
er Str. 5, 84489 Burghausen (DE).

(74) Agent: **STAUDACHER, Wolfgang**; Johannes-Hess-Str.
24, 84489 Burghausen (DE).

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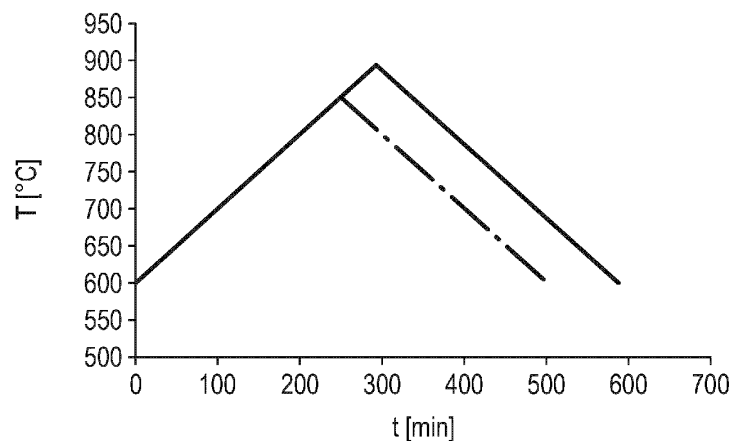
(71) Applicant: **SILTRONIC AG** [DE/DE]; Einsteinstr. 172
Tower B / Blue Tower, 81677 München (DE).

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(54) Title: SEMICONDUCTOR WAFER MADE OF SINGLE-CRYSTAL SILICON AND PROCESS FOR THE PRODUCTION THEREOF

Fig. 1



(57) Abstract: A semiconductor wafer and a process for the production thereof. The semiconductor wafer is made of single-crystal silicon with an oxygen concentration as per new ASTM of not less than 5.0×10^{17} atoms/cm³ and of not more than 6.5×10^{17} atoms/cm³; a nitrogen concentration as per new ASTM of not less than 1.0×10^{13} atoms/cm³ and not more than 1.0×10^{14} atoms/cm³; a front side of the semiconductor wafer is covered with an epitaxial layer made of silicon; the semiconductor wafer comprises BMDs whose mean size is not more than 10 nm determined by transmission electron microscopy and whose mean density in a region adjacent to the epitaxial layer is not less than 1.0×10^{11} cm⁻³, determined by reactive ion etching after having subjected the wafer covered with the epitaxial layer to a heat treatment at a temperature of 780°C for a period of 3 h and to a heat treatment at a temperature of 600 °C for a period of 10 h.

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